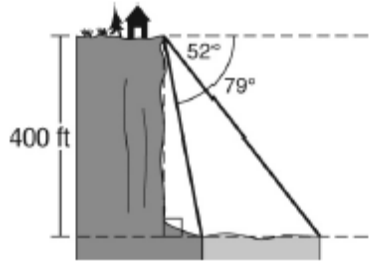


Regular Geometry Chapter 10 Practice Test**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- _____ 1. Which are angle measures of a right triangle?
A) $60^\circ, 60^\circ, 60^\circ$ C) $27^\circ, 63^\circ, 90^\circ$
B) $14^\circ, 83^\circ, 83^\circ$ D) $45^\circ, 55^\circ, 80^\circ$
- _____ 2. The sum of the measures of the interior angles of a regular polygon is 1800° . How many sides does the polygon have?
A) 8 C) 12
B) 10 D) 18
- _____ 3. A fountain casts a shadow that is 24 feet long at the same time a child who is 4 feet 6 inches tall casts a shadow 18 feet long. To the nearest inch, how tall is the fountain?
A) 3 ft 5 in. C) 6 ft 0 in.
B) 5 ft 5 in. D) 10 ft 6 in.
- _____ 4. Three sides of a right triangle measure 5, 12, and 13 units. What is the measure of the smallest angle to the nearest degree?
A) 23° C) 65°
B) 25° D) 67°

- _____ 5. From the top of a canyon, the angle of depression to the far side of the river is 52° . The angle of depression to the near side of the river is 79° . The depth of the canyon is 400 feet. To the nearest foot, how wide is the river at the bottom of the canyon?



- A) 104 ft C) 235 ft
B) 204 ft D) 785 ft

- _____ 6. A triangle and a parallelogram have the same base and equal areas. What is true about the altitude of the triangle?

- A) It is one-fourth that of the parallelogram.
- B) It is one-half that of the parallelogram.
- C) It is twice that of the parallelogram.
- D) Not here

7. Which represents the area of a parallelogram with adjacent sides of length x and y and included angle 63° ?

- A) $xy(\cos 63^\circ) \text{ units}^2$
 B) $xy(\tan 63^\circ) \text{ units}^2$
 C) $xy(\sin 63^\circ) \text{ units}^2$
 D) Not here

- _____ 8. The shorter diagonal of a rhombus is equal in length to one of its sides. The length of a side is 6 inches. What is the area of the rhombus in simplest form?

- A) $9\sqrt{3} \text{ in}^2$ C) $27\sqrt{2} \text{ in}^2$
B) $18\sqrt{3} \text{ in}^2$ D) Not here

Name: _____

ID: A

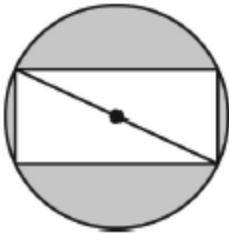
- _____ 13. Two circles have the same center. The radius x of the smaller circle is 5 units less than the radius of the larger circle. How many more square units does the larger circle cover?

A) -25π C) $(10x+25)\pi$
B) $(x^2+10x+25)\pi$ D) 25π

- _____ 14. To the nearest tenth, what is the area of a regular nonagon with a side length of 8 centimeters?

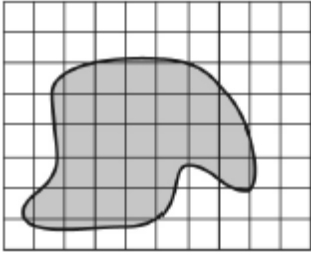
A) 307.7 cm^2 C) 421.1 cm^2
B) 395.6 cm^2 D) 791.2 cm^2

- _____ 15. The diagonal of the rectangle is 13 inches, and the side lengths of the triangles are Pythagorean triples. To the nearest tenth, what is the area of the shaded part of the figure?



A) 72.7 in^2 C) 132.7 in^2
B) 116.7 in^2 D) Not here

- _____ 16. Use composite figures to estimate the area of the irregularly shaped garden shown. If the garden requires 20 gallons of water per square foot per year, how much water will the garden require in one year? The grid has squares with side lengths of 2 feet.



- A) between 500 and 1000 gallons C) between 1500 and 2000 gallons
B) between 1000 and 1500 gallons D) more than 2000 gallons
- _____ 17. Which are the vertices of a polygon with a perimeter of $10\sqrt{5}$ units?
A) $A(5, -1)$, $B(-1, -4)$, $C(-3, 1)$ C) $P(-4, 1)$, $Q(2, 4)$, $R(4, 0)$, $S(-2, -3)$
B) $K(-4, 1)$, $L(0, 4)$, $M(4, 0)$, $N(-2, -3)$ D) $T(5, -1)$, $U(-1, -4)$, $V(0, 3)$
- _____ 18. Find the area of the polygon with vertices $P(5, -1)$, $Q(-1, -4)$, $R(-3, 1)$, and $S(0, 3)$. If necessary, round to the nearest tenth.
A) 10 units^2 C) 88.8 units^2
B) 29 units^2 D) Not here
- _____ 19. Find the area of the circle with center $P(2, 2)$ that passes through the point $R(-1, 7)$. If necessary, round to the nearest tenth.
A) 34 units^2 C) 213.5 units^2
B) 106.8 units^2 D) Not here

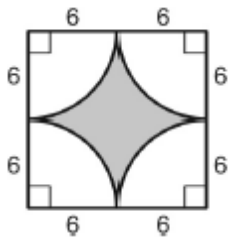
Name: _____

ID: A

- _____ 20. Which does NOT result in multiplying the area of the figure by a factor of 9?
- A) multiplying the height of a triangle by 9 C) multiplying the side lengths of a rectangle by 3
- B) tripling the perimeter of a circle D) multiplying the perimeter of a square by 9

- _____ 21. Which change will make the area of a parallelogram 25% of the original area?
- A) Multiply the base and height by 0.25. C) Multiply the base and height by 0.5.
- B) Multiply only the base by 0.5. D) Multiply only the height by 0.75.

- _____ 22. What is the probability that a dart thrown at the target shown will land in the shaded area? Round your answer to the nearest hundredth of a percent.



- A) 6.72% C) 30.96%
- B) 21.46% D) 65.04%
- _____ 23. A stoplight has the cycle shown in the figure. If you arrive at the light 35 times, about how many times will you have to stop and wait more than 15 seconds?



- A) 5 times C) 17 times
- B) 6 times D) 18 times

Regular Geometry Chapter 10 Practice Test Answer Section

MULTIPLE CHOICE

- | | | | |
|--|--------|------------|----------------------------------|
| 1. ANS: C | PTS: 1 | DIF: 2 | TOP: Cumulative Test, Chapter 10 |
| MSC: DOK 1 | | | |
| 2. ANS: C | PTS: 1 | DIF: 2 | TOP: Cumulative Test, Chapter 10 |
| MSC: DOK 2 | | | |
| 3. ANS: C | PTS: 1 | DIF: 2 | NAT: NT.CCSS.MTH.10.9-12.G.SRT.5 |
| TOP: Cumulative Test, Chapter 10 | | MSC: DOK 1 | |
| 4. ANS: A | PTS: 1 | DIF: 2 | NAT: NT.CCSS.MTH.10.9-12.G.SRT.8 |
| TOP: Cumulative Test, Chapter 10 | | MSC: DOK 1 | |
| 5. ANS: C | PTS: 1 | DIF: 2 | NAT: NT.CCSS.MTH.10.9-12.G.SRT.8 |
| TOP: Cumulative Test, Chapter 10 | | MSC: DOK 2 | |
| 6. ANS: C | PTS: 1 | DIF: 2 | NAT: NT.CCSS.MTH.10.9-12.A.CED.4 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | MSC: DOK 2 | |
| 7. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 1 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.A.CED.4 |
| 8. ANS: B | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.A.CED.4 |
| 9. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.A.CED.4 |
| 10. ANS: B | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.A.CED.4 |
| 11. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 12. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 13. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 14. ANS: B | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 15. ANS: A | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.G.MG.3 |
| 16. ANS: D | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.G.GPE.7 |
| 17. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | NAT: NT.CCSS.MTH.10.9-12.G.GPE.7 |
| 18. ANS: B | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 19. ANS: B | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 20. ANS: D | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |
| 21. ANS: C | PTS: 1 | DIF: 2 | MSC: DOK 2 |
| TOP: Chapter 10 Multiple Choice Test, Form C | | | |

22. ANS: B PTS: 1 DIF: 2
TOP: Chapter 10 Multiple Choice Test, Form C MSC: DOK 2
23. ANS: B PTS: 1 DIF: 2
TOP: Chapter 10 Multiple Choice Test, Form C MSC: DOK 2